STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0129259
Owner:	MDNR, Division of State Parks
Address:	P.O. Box 176, Jefferson City, MO 64437
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	MDNR, Big Lake State Park WWTF
Facility Address:	204 Lake Shore Drive, Craig, MO 64477
Legal Description:	Outfall #001 - SE ¼, SW ¼, Sec. 18, T16N, R39W, Holt County Outfall #002 - SW ¼, NE ¼, Sec. 19, T16N, R39W, Holt County
Receiving Stream:	Big Lake (L3)
First Classified Stream and ID:	Big Lake (L3)(07059)
USGS Basin & Sub-watershed No.:	(10240005-180004)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

August 22, 2003
Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

August 21, 2008
Expiration Date

James R. Macy, Director, Kansas City Regional Office

MO 780-0041 (10-93)

FACILITY DESCRIPTION (continued)

Outfall #001 – Domestic Wastewater - SIC #4952
No-discharge system
Two-cell storage lagoon/sludge retained in lagoon/excess flow hauled to permitted WWTF.
Design population equivalent is 59.
Design flow is 7,900 gallons per day.
Design sludge production is 0.89 dry tons/year.
Actual sludge production is 0.68 dry tons/year.

Outfall #002 - Swimming pool de-watering – SIC #7033
End of season de-watering/filter backwash discharged to sanitary sewer.
Actual flow is 155,000 gallons

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 – This is a no discharge facility (Notes 1 & 2)						
Flow** - (Note 1)		*		*		
Rainfall**	inches	*		*	once/daily	total
Lagoon freeboard** (Note 2)	feet	*		*	once/daily	measured
Wastewater hauled to permitted facility**	gallons	*		*	once/event	total
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE October 28, 2003.						
Outfall #002 – Swimming pool de-watering/filter backwash (Notes 3, 4, & 5)						
Filter Backwash – (Note 3)						
Volume – (Note 4)	gallons	*		*	once/month	estimate
Total Residual Chlorine****	mg/L	0.02		0.02	once/month	grab
Settleable Solids	ml/L	1.5		1.0	once/month	grab
Dissolved Oxygen (Note 5)	mg/L	*		*	once/month	grab
pH - Units	SU	***		***	once/month	grab
Pool Drainage						
Volume (Note 4)	gallons	*		*	once/year	estimate
Total Residual Chlorine****	mg/L	0.02		0.02	once/year	grab
Settleable Solids	ml/L	1.5		1.0	once/year	grab
Dissolved Oxygen (Note 5)	mg/L	*		*	once/year	grab
pH - Units	SU	***		***	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE January 28, 2004. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Reported Quarterly to the department in the months of January, April, July, and November.
*** pH is measured in pH units and is not to be averaged. pH is limited to the range of 6.0-9.0 pH units.
**** Chlorine residual shall be determined using a colorimeter or other analytical instrument able to measure concentrations down to 0.01 mg/L. If the discharge is to a stream that is classifed as a cold-water fishery, the allowable chlorine residual in the discharge is "no detectable chlorine." The permittee shall use an analytical measurement procedure that is able to detect chlorine residual concentrations down to 0.01 mg/L.

Note 1 – **No-discharge facility requirements**. Wastewater shall be stored and hauled to a permitted WWTF so that there is no-discharge from the lagoon system. Discharging from the no-discharge lagoon system into waters of state is a violation of this permit.

Note 2 – **Lagoon Operating Levels - No-discharge Systems.** The minimum and maximum operating water levels for the storage lagoon shall be clearly marked. Each lagoon shall be operated so that the maximum water elevation does not exceed one foot below the overflow point. Wastewater shall be hauled to the permitted wastewater treatment system whenever feasible based on water level. Storage lagoons shall maintain at least a two-foot operating depth at all times.

Note 3 - If more than one discharge of filter backwash water occurs in a month, testing is required for only one discharge event. If no discharge occurs in a given month, report as "no-discharge" for that month.

Note 4 - Estimate the volume as the total gallons of water that is released. The release rate shall be controlled to avoid high volumes of water being discharged into small streams that can cause stream channel erosion or can cause downstream flooding or property damage.

Note 5 - De-chlorination can lead to a lowering of the dissolved oxygen (DO) concentration in the water that is discharged. If necessary, use aeration to maintain the DO level above 5.0 mg/L to protect aquatic life in the receiving stream.

C. SPECIAL CONDITIONS (concerning outfall #002)

1. This permit authorizes the discharge of filter backwash water and water drained from swimming pools and lined decorative ponds and fountains, herein after referred to as a "pool or pond," to waters of the State of Missouri. Discharges from pools and/or ponds at single-family residences are exempted from permit requirements.

2. If at any time the owner of a pool or pond desires to apply for a site-specific State Operating Permit, the owner may do so.

3. The Total Residual Chlorine (TRC) concentration in the discharge is the principal parameter of concern. The TRC concentration in the discharge must not exceed 0.02 mg/L. Chemical dechlorination may be used to remove chlorine if necessary to meet chlorine limits. It is recommended that in leau of chemical dechlorination, chorination be ceased at least three days or longer before draining the pool at the end of the recreational season to allow the chlorine to naturally dissipate. If the discharge is to a stream that is classifed as a cold-water fishery, the allowable chlorine residual in the discharge is "no detectable chlorine." The permittee shall use an analytical measurement procedure that is able to detect chlorine residual concentrations down to 0.01 mg/L.

C. SPECIAL CONDITIONS (concerning outfall #002) (continued)

4. Filter backwash should be directed to grassed areas or other buffers to the extent possible to prevent a direct discharge to state waters. Effluent limitations are applicable where the discharge leaves the property boundary. If retention structures are needed to meet the effluent limitations, the appropriate Departmental Regional Office shall be contacted to determine if a construction permit is required.

5. This permit should not be considered to be protective against claims of nuisance or water damage on adjacent properties.

6. In the event that the discharge is known to cause a fish kill, the permittee shall immediately contact the Department's Emergency Response Team at (573) 634-2436 and the discharge shall be ceased.

7. An annual report is required by the terms of this permit. The annual report should include the following information:

   a. Source of the water for the pond or pool.
   b. Discharge monitoring parameters as listed in Section A, "Effluent Limitations and Monitoring Requirements."
   c. A list of all chemicals other than chlorine compounds that are added to the pond or pool for algae control or other purposes and the estimated quantities of such chemicals.
   d. Dates of operation of the pond or pool.

C. SPECIAL CONDITIONS (concerning outfall #001)

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

C. SPECIAL CONDITIONS (concerning outfall #001) (continued)

4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:
(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    (1) One hundred micrograms per liter (100 µg/L);
    (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    (4) The level established in Part A of the permit by the Director.
(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
(a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
(b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
(c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
(d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
(e) There shall be no significant human health hazard from incidental contact with the water;
(f) There shall be no acute toxicity to livestock or wildlife watering;
(g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
(h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
(a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
(b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

D. SCHEDULE OF COMPLIANCE

The permittee shall adhere to and submit the following to the department by **April 30, 2004:**

1. The facility must determine sludge depth of the first cell and have biosolids removed, if necessary.

2. Submit design plans for the original lagoon construction to the department.

3. Complete a water balance study completed per 10 CSR 20-8.020 (16) to determine if either lagoon cell is leaking. If either lagoon is leaking, the facility must submit an engineering report that will describe the procedures that will be followed to repair the seal to meet current design criteria.